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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,136	01/08/2001	Winston Way	26084-709	4981
20985	7590	11/18/2004	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			LI, SHI K	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/755,136

Applicant(s)

WAY, WINSTON

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2004 and 23 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 1-22, 24-30, 35-48 and 52-62 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-34 is/are allowed.
- 6) ☒ Claim(s) 23 and 49-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of species IV corresponding to FIG. 3B in the reply filed on 13 August 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Applicant indicates that the species includes claims 31-34, claims 49-51 and claim 11, and claims 1-5, claims 13-15 and claim 23 are generic to the species. The Examiner disagrees. While claims 31-34 and claims 49-51 read on FIG. 3B, claim 11 does not. Claim 11 depends on claim 1. Claim 1 recites limitations "occupies a plurality of input channels" in line 3 of the claim and "wherein the plurality of input channels includes at least a plurality of adjacent WDM channels within one ITU WDM window" in lines 11-12 of the claim. However, FIG. 3A indicates that the two input channels are not adjacent. Therefore, claim 1, and all claims depend on claim 1, do not read on FIG. 3A. Similarly, Claim 13 recites limitations "occupies a plurality of input channels" in line 4 of the claim and "wherein the plurality of input channels includes at least a plurality of adjacent WDM channels within one ITU WDM window" in lines 13-14 of the claim. FIG. 3A indicates that the two input channels are not adjacent. Therefore, claim 13, and all claims depend on claim 13, do not read on FIG. 3A. In summary, claim 11 does not read on FIG. 3B; claims 1-5 and claims 13-15 are not generic to the elected species and are not examined.
3. Examiner agrees that claim 23 is generic to the elected species and examines claim 23.

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4. Claims 1-22, 24-30, 35-48 and 52-62 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 13 April 2004.

5. The election requirement is made FINAL.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 49-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 49 recites the limitation "converting the third optical signal into an electronic data signal wherein a selected WDM channel is shifted to the buffer channel". Since the buffer channel is a WDM channel, it must have a frequency range within optical spectrum. That is, the buffer channel is represented as a frequency range in optical spectrum. When the third signal is converted into electronic data signal, it cannot occupy a frequency range within optical spectrum. Therefore the claim is indefinite.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sotom et al. (U.S. Patent 5,896,212) in view of ITU-T G.692 (ITU-T Recommendation G.692, "Optical Interfaces for Multichannel Systems with Optical Amplifiers", October 1998).

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Sotom et al. discloses in FIG. 4 a network controller for receiving a input signal E_m comprising a plurality of WDM channels, extracting a label wavelength λ_c containing label information, modifying label information via control unit and recombining the modified label information with other wavelength channels, which carry payload, to form a WDM optical signal S_m . The difference between Sotom et al. and the claimed invention is that Sotom et al. does not teach that the wavelength channels are within an ITU WDM windows. ITU-T G.692 defines in ANNEX A, ANNEX B and APPENDIX III and APPENDIX IV WDM channel wavelengths. One of ordinary skill in the art would have been motivated to combine teaching of ITU-T G.692 with the network controller method of Sotom et al. because confirming to ITU standards provides compatibility with other network facilities. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use wavelength channels within ITU WDM windows, as taught by ITU-T G.692, in the network controller method of Sotom et al. because confirming to ITU standards provides compatibility with other network facilities.

10. Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sotom et al. and ITU-T G.692 as applied to claim 23 above, and further in view of Frigo (U.S. Patent 6,222,654 B1).

Sotom et al. and ITU-T G.692 have been discussed above in regard to claim 23. The difference between Sotom et al. and ITU-T G.692 and the claimed invention is that Sotom et al. and ITU-T G.692 do not teach to remodulate an optical carrier derived from the input signal. Frigo teaches in FIG. 5 and FIG. 6 a transceiver 208 that extracts optical carrier from input signal and remodulate the optical carrier with modified information. One of ordinary skill in the art would have been motivated to combine the teaching of Frigo with the modified network

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controller of Sotom et al. because the method of Frigo eliminates a light source which has shorter lifetime than other components. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to derive an optical carrier from the input signal and remodulate the optical carrier with modified label information, as taught by Frigo, in the modified network controller of Sotom et al. because the method of Frigo eliminates a light source which has shorter lifetime than other components.

Regarding claim 50, Sotom et al. teaches in FIG. 3 to drop a wavelength channel λ_i and add new data to the dropped WDM channel.

11. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sotom et al., ITU-T G.692 and Frigo as applied to claims 49-50 above, and further in view of Izutsu et al. (M. Izutsu et al., "Integrated Optical SSB Modulation/Frequency Shifter", IEEE Journal of Quantum Electronics, Vol. QE-17, No. 11, November 1981).

Sotom et al., ITU-T G.692 and Frigo have been discussed above in regard to claims 49-50. The difference between Sotom et al., ITU-T G.692 and Frigo and the claimed invention is that Sotom et al., ITU-T G.692 and Frigo do not teach to use OSSB modulators as wavelength converters. Izutsu et al. discloses in FIG. 1 an integrated optical SSB modulator/frequency shifter. One of ordinary skill in the art would have been motivated to combine the teaching of Izutsu et al. with the modified network controller of Sotom et al., ITU-T G.692 and Frigo because the modulator/frequency shifter can be integrated with other optical components and reduces the size of the network controller. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use OSSB modulator/frequency shifter as wavelength converters, as taught by Izutsu et al., in the modified network controller of Sotom et

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al., ITU-T G.692 and Frigo because the modulator/frequency shifter can be integrated with other optical components and reduces the size of the network controller.

Allowable Subject Matter

12. Claims 31-34 are allowed.

Response to Arguments

13. Applicant's arguments with respect to claims 23 and 49-51 have been considered but are moot in view of the new ground(s) of rejection.

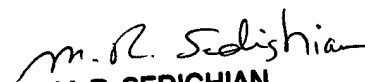
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

skl


M. R. SEDIGHIAN
PRIMARY EXAMINER